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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,319	08/24/2006	Marina Rogunova	1200404N US	2634

35227 7590 04/08/2008  
POLYONE CORPORATION  
33587 WALKER ROAD  
AVON LAKE, OH 44012

EXAMINER
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MULLIS, JEFFREY C

ART UNIT	PAPER NUMBER
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1796

MAIL DATE	DELIVERY MODE
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04/08/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/598,319	<b>Applicant(s)</b> ROGUNOVA ET AL.	
	<b>Examiner</b> Jeffrey C. Mullis	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2-22-08; 7-9-07; 7-9-07</u> .                                 | 6) <input type="checkbox"/> Other: _____                          |

Applicants IDS of 7-9-07 listing copending applications has not been considered since the content requirements of 609.01 B(e)(i-iii) have not been met and furthermore there is no place on the form for the examiner to indicate consideration by signature. It is suggested that if IDS is resubmitted that the references be cited as pregrant publications only in the manner that applicants have cited them on their other IDS's.

Applicants provisional application does not disclose "in situ" formation and applicants effective filing date is therefore 2-22-05.

Applicants claim for foreign priority in their application data sheet (note the "Priority Claimed" box is checked "yes") is not recognized since the foreign application is not identified.

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is unclear in that the optional feature can variously be interpreted as pertaining only to the term "in situ" or can or can also be viewed as pertaining to the polyphenylene ether also.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galucci (US 5719233) in view of Gervat (ANTEC, p2772-76), or Bonnet (applicants NPL references 1-2 on the IDS of 7-9-07).

Patentees disclose a composition identical to applicants except that a styrene diene block copolymer is used in place of applicants SBM. Note patent claim 1.

Homopolystyrene or HIPS may be added at the paragraph bridging columns 7 and 8.

Gervat in the section on page 2773 entitled "property profile of nonostructured thermoplastics by SBM" discloses a number of advantages to using SBM in place of styrene diene block copolymers such as a better balance of toughness, stiffness and softening temperatures in PPE/polystyrene blends.

Bonnet in the Abstract discloses that SBM imparts favorable properties to Thermoplastics such as impact strength rigidity and transparency.

It would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention to add SBM to the composition of the primary reference to extend the benefits of the secondary references to the primary reference absent any showing of surprising or unexpected results.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dong et al. (US 2005/0046070).

Dong discloses a composition containing PPE (abstract), functionalized PPE as in applicants component "d" (paragraph 38), SBM (paragraph 55) and polyamides (paragraph 60).

Art Unit: 1796

There are no examples in which all of applicants' materials are present in combination. However to arrive at such by selecting from the various disclosures of the reference would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention in the expectation of adequate results absent any showing of surprising or unexpected results.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis at telephone number 571 272 1075.

Jeffrey C. Mullis  
Primary Examiner  
Art Unit 1796

JCM

4-1-08

/Jeffrey C. Mullis/

Primary Examiner, Art Unit 1796